

UK National Screening Committee

Antenatal screening for varicella susceptibility

12 February 2016

Aim

1. To ask the UK National Screening Committee to make a recommendation, based upon the evidence presented in this document, whether or not antenatal screening for varicella susceptibility in pregnancy meets the UK NSC criteria to support the introduction of a population screening programme.

This document provides background on screening for varicella susceptibility in pregnancy.

Current recommendation

2. The 2009 review of antenatal screening for susceptibility to Varicella Zoster Virus (VZV) concluded that systematic population screening of pregnant women did not meet the UK NSC criteria.
3. The 2009 review concluded that key evidence gaps remained around the proportion of women in the UK who are susceptible and, of these, the proportion who are exposed to VZV during pregnancy. There were also evidence gaps relating to, test standards for identifying women at risk of VZV infection, and the effectiveness of a screening programme in improving outcomes when compared with the JCVI and RCOG recommendations for management of post exposure

Current review

4. The current review was undertaken by Dr Heather Bailey, in accordance with the triennial review process <http://legacy.screening.nhs.uk/varicella>
5. The review focuses on key questions relating to the condition, test and treatment which arise from the previous UK NSC review (2009).

6. The conclusion of the current review is to reaffirm the UK NSC recommendation not to screen for varicella susceptibility in pregnant women. The key reasons are:
 - a. There is very little data to inform discussion of the prevalence of varicella susceptibility in the UK or on the proportion of susceptible women exposed to the virus during pregnancy. **Criterion 1 not met**
 - b. A candidate test cut off for differentiating immunity and susceptibility has been suggested. However the evidence base for this is very limited and it has not been evaluated as a population screening test. **Criterion 5 not met**
 - c. No studies exploring the effectiveness of post exposure VZIG preventing or reducing the severity of maternal symptoms, reducing the risk of vertical transmission and reducing the severity of fetal infection were identified. It remains uncertain whether a screening strategy would offer any benefits, for mother and/or infant, beyond the current recommendations for post exposure prophylaxis issued by the JCVI and RCOG. **Criterion 10 not met**

Consultation





7. A three month consultation was hosted on the UK NSC website. 11 stakeholder organisations were contacted directly. **Annex A**
8. Responses were received from the Royal College of Obstetricians and Gynaecologists, and the Royal College of Midwives. These comments are in **Annex B**, below. No respondent disagreed with the review's recommendations.
9. The review was discussed with the JCVI prior to the public consultation. The responses indicated broad agreement with the review's recommendations, but also an aspiration to consider to the question of antenatal screening and postnatal vaccination should the current selective immunisation policy change.

Recommendation

10. The committee is asked to approve the following recommendation:

A systematic population screening programme for varicella susceptibility in pregnant women is not recommended.

Based on the 22 UK NSC criteria set to recommend a population screening programme, evidence was appraised against the following seven criteria:

Criteria		Met / Not met
The Condition		
1	The condition should be an important health problem as judged by its frequency and/or severity. The epidemiology, incidence, prevalence and natural history of the condition should be understood, including development from latent to declared disease and/or there should be robust evidence about the association between the risk or disease marker and serious or treatable disease.	Not Met 
The Test		
4	There should be a simple, safe, precise and validated screening test.	Not met 
5	The distribution of test values in the target population should be known and a suitable cut-off level defined and agreed.	Not met 
The Intervention		
10	There should be an effective intervention for patients identified through screening, with evidence that intervention at a pre-symptomatic phase leads to better outcomes for the screened individual compared with usual care. Evidence relating to wider benefits of screening, for example those relating to family members, should be taken into account where available. However, where there is no prospect of benefit for the individual screened then the screening programme shouldn't be further considered.	Not met 

List of organisations contacted:

1. British Infection Association
2. British Society for Immunology
3. Herpes Viruses Association
4. Infection Prevention Society
5. Institute of Child Health
6. Royal College of General Practitioners
7. Royal College of Midwives
8. Royal College of Obstetricians and Gynaecologists
9. Royal College of Paediatrics and Child Health
10. Royal Society for Public Health
11. UK Clinical Virology Network

UK National Screening Committee
Screening for Varicella Susceptibility in pregnancy- an evidence review

Compiled Consultation Comments

1.

Name:	Dr Manish Gupta MRCOG	Email address:	xxxxx xxxxx
Organisation (if appropriate):	RCOG		
Role:	Co-Chair, Guidelines Committee		
Do you consent to your name being published on the UK NSC website alongside your response? Yes			
Section and / or page number	Text or issue to which comments relate		
General	<p>This document is well written and the updated evidence is well presented. We are also happy that it does not conflict with the recent RCOG guideline on this topic.</p> <p>The conclusions of the review (that the current policy not to screen all pregnant women for VZV susceptibility is retained) do not conflict with the recently updated RCOG green-top guideline 'Chickenpox in pregnancy' (January 2015).</p> <p>We are in agreement with the recommendation of the review and the conclusions not to screen.</p>		
General	<p>We would agree with the author's conclusions that the screening criteria are not met. While this appraisal is not tasked with considering costs, it may be of interest to note that we undertook a local review of the cost of testing the small</p>		

	number of exposed mothers out of hours to determine the appropriateness of VZIG treatment to the costs of screening all mothers at booking and determined that the latter was cheaper.
Summary Pag 2	We think a caveat should be added that most people BORN in the UK will have had chickenpox, however many populations born and raised to adulthood outside the UK will not have it. It is mentioned later but we think it is important to mention here.
Paragraph 7 (Line 5)	May read better as "Two studies conducted in small UK populations reported"
Paragraph 8 (Line 10)	"cut-off is thought to vary"
Executive summary Pag 3	The review has addressed the 'findings for each of the key questions'. Yet the 3 questions are presented as statements with a question mark at the end. For simplicity and clarity, best to state it in a question format as in What is the prevalence of susceptibility to VZV among pregnant women in the UK? What is the proportion of women expected to come into contact with VZV during pregnancy? What is the accuracy of self-reported history of chickenpox? What is the effectiveness of VZIG for preventing or reducing the severity of maternal symptoms?
Paragraph 2 (Line 2)	Take out representing
Criteria 10	The authors discuss the risk of transmission as being 25% with FVS affecting 12% of the babies (Lamont et al, 2011 based on Sauerbrei A, Wutzler P. Varicella-zoster virus infections during pregnancy: epidemiology, clinical symptoms, diagnosis, prevention and therapy. <i>Curr Pediatr Rev</i> 2005;1:205–15). However the RCOG guideline suggests that the incidence is much lower than this based on evidence from 9 cohort studies (Tan et al 2006) (0.91% before 20 weeks and 0.55% in the first trimester).

2.

Name:	Mervi Jokinen	Email address:	xxxx xxxx
Organisation (if appropriate):	Royal College of Midwives (RCM)		
Role:			
<p>Do you consent to your name being published on the UK NSC website alongside your response?</p> <p style="text-align: center;">Yes x <input type="checkbox"/> No <input type="checkbox"/></p>			
Section and / or page number	Text or issue to which comments relate		
General		<p>RCM agrees with the external review recommendation not to screen all pregnant women for VZV susceptibility and that the current policy is retained.</p> <p>This is supported by the consensus between midwives and obstetricians on clinical guidelines regarding chicken pox in pregnancy. The RCOG Green-top guidelines have been adopted, promoting individual assessment and treatment as required. Giving women sustained non-equivocal information improves the quality of clinical care reducing variation. By introducing universal screening programme does not appear to introduce new clinical management (supported by evidence) that cannot be reached by founding the decision making on the level of individual history assessment and planned action.</p>	